

**Notice of Allowability**

Application No.

10/065,495

Examiner

William H. Rodriguez

Applicant(s)

BUNKER, RONALD SCOTT

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/21/05.
2. ☒ The allowed claim(s) is/are 1,3,8-11 and 14-17.
3. ☒ The drawings filed on 24 October 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### DETAILED ACTION

This office action is in response to the amendment and remarks filed 4/21/05.

#### *Allowable Subject Matter*

1. Claims 1, 3, 8-11 and 14-17 are allowed.

The closest prior art (**Vogt, US 4,236,378**) teaches a corrugated outer shell 42 and an inner liner composed of a plurality of panels. However, **Vogt** does not teach that the outer surface of the liner has a plurality of axially spaced annular grooves, wherein each groove has a uniform, substantially semi-circular cross-section and the grooves extending continuously about a circumference of said liner. Ye further, the references listed in the PTO-892 form attached to this office action teach a corrugated liner but do not teach a liner comprising a plurality of annular grooves on an outer surface of the liner.

With respect to claim 1, applicant arguments presented *on page 5 the last paragraph to page 6 the first and second paragraphs* of applicant's response are found persuasive because the prior art of record neither discloses nor makes obvious the combination set forth in the independent claims, and especially does not show "a plurality of axially spaced annular grooves formed in an outside surface of said combustor liner, each groove having a uniform, substantially semi-circular cross-section and extending continuously about a circumference of said liner" in combination with the other claims limitations.

Claims 9, 10 and 16 were indicated to be allowable in the previous office action.

With respect to claim 9, the following is an examiner's statement of reasons for allowance: the prior art of record neither discloses nor makes obvious the combination set forth in the independent claims, and especially does not show "a second plurality of axially spaced,

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continuous circumferential grooves criss-crossed with said first plurality of axially spaced circumferential grooves wherein said first and second plurality of axially spaced circumferential grooves are uniformly curved in cross-section”, in combination with the other claim limitations.

With respect to claim 10, the following is an examiner's statement of reasons for allowance: the prior art of record neither discloses nor makes obvious the combination set forth in the independent claims, and especially does not show “a plurality of axially spaced annular grooves formed in an outside surface of said combustor liner, each groove extending continuously about a circumference of said liner; wherein said grooves are semi-circular in cross-section”, in combination with the other claim limitations.

With respect to claim 16, the following is an examiner's statement of reasons for allowance: the prior art of record neither discloses nor makes obvious the combination set forth in the independent claims, and especially does not show “a second plurality of axially spaced, continuous circumferential grooves criss-crossed with said first plurality of axially spaced circumferential grooves, and wherein said first and second plurality of axially spaced circumferential grooves are smoothly curved in cross-section”, in combination with the other claim limitations.

With respect to claim 17, the following is an examiner's statement of reasons for allowance: the prior art of record neither discloses nor makes obvious the combination set forth in the independent claims, and especially does not show “a first plurality of axially spaced, continuous circumferential grooves formed in an outside surface of said liner, each groove having a uniform cross-section and extending continuously about a circumference of said liner”, in combination with the other claim limitations.

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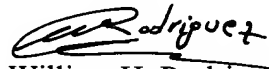
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 571-272-4831. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William H. Rodriguez  
Examiner  
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6/24/05